

ISSUE: June 2024

# Sensors Converge 2024: Where Processing, Sensing And Connectivity Converge

Billed as North America's largest electronics event for design engineers with over 5000 attending last year, Sensors Converge 2024 will soon be drawing crowds for this year's event, which will be held June 24-26 at the Santa Clara Convention Center. Featuring 80+ educational sessions and six in-depth workshops delivered by 100+ of the brightest minds in sensor engineering, Sensors Converge will enable attendees to connect directly with like-minded peers on their specific design challenges. Participants will hear about best practices from industry leaders in sensing, processing and connecting, and source the latest products and partners for their exact design projects.

This year's program will provide cutting edge knowledge and expert training for technical professionals through leaders' roundtables, lightning talks, panel discussions, industry hub roundtables, hands-on workshops and more.

Sensors Converge has evolved over nearly four decades as an event focusing solely on sensor technology, to a larger and more diversified event focusing on electronics technologies and embedded systems that work hand-in-hand with sensors. From enabling innovation, to process design & control development, to transforming markets, Sensors Converge covers technologies and applications that are driving smart sensor innovation into the era of sustainable living.

Located in Silicon Valley, the #1 electronics market and epicenter for technological innovation in North America, Sensors Converge uniquely covers the complete spectrum of the design engineering cycle, with content focused on adjacent technologies and applications. According to its organizers, this is the definitive event for design and implementation.

Attendees will join their peers from companies such as Abbott, Amazon, Apple, Bissell, Bridgestone, BMW, Dupont, Dyson, Energizer, Google, Honda, HP, John Deere, Lockheed Martin, Medtronic, Nike, Shell, simplehuman, Sony, Stryker, Tesla, Toyota, and many more. Meanwhile, in the expo, Sensors Converge participants will be able to connect in person with over 200 exhibitors, joining leading engineers and innovators to see the latest sensing technologies and identify new ways to improve products and expand their capabilities using sensors.

Visitors to the expo will learn about "hot" and cutting-edge technology areas. Among the many reasons to attend Sensors Converge, this is the only systems-level design event in North America to cover sensors, embedded, processing, vision, AI, security, auto tech, and med tech under one roof. Click <a href="here">here</a> to view the exhibitors list.

#### This Year's Program

Sensors Converge 2024 features a lineup of compelling speakers. Among the notables are Azita Arvani, former CEO of Raktuen Symphony North America and board member of Entrepreneur AGI; Scott Bryson, applications engineer at Texas Instruments; Divya Garikapati, senior systems engineer, Woven by Toyota; Sudhansu Gaur, chief architect, Industry 4.0, Astemo and vice president, R&D division, Hitachi America; and several others in various fields.

Spread over three days, the extensive conference program covers three major themes: sensing, processing and connecting as exemplified in the list of talks below. For more details on these talks, see the Conference Overview page.

For more information about Sensors Converge, including details on how to register, see the <u>website</u>. For any questions about the conference or expo, contact the <u>show organizers</u>.



# **Program Schedule**

#### Monday, June 24

8:00am PDT Registration/Badge Pick-up

9:00am PDT

Half-Day Pre-Conference Workshop: Challenges and Opportunities for Printed, Flexible, Stretchable, and Functional/E-Fabric Sensors and Sensor-Based Systems: New Platforms Enabling Novel Solutions for IoT and Wearable...

Half-Day Pre-Conference Workshop: Unlocking the IoT with TinyML and LoRaWAN

Full-Day Pre Conference Workshop: Auto Tech - Driving Automotive Technology Forward

Full-Day Pre-Conference Workshop: Examining the Impacts of AI in the Design & Development of Electronics

1:00pm PDT

Half-Day Pre-Conference Workshop: Rust for C Programmers

Pre-Conference Workshop - Sensorizing With MEMS: Exploring the Latest in Products, Design, and Manufacturing

4:00pm PDT

**Networking Roundtables** 

4:30pm PDT

VIP Opening Night Reception

## Tuesday, June 25

7:30am PDT Registration/Badge Pick-up

8:00am PDT

Press & Analyst Breakfast

9:00am PDT

Leaders' Roundtable: A Year in Review: Exploring the Evolving Landscape of Sensors, Semiconductors, and the Electronic Industry

9:40am PDT

Track Keynote, Connectivity & IoT Integration: Title TBC

Presentation: CAN-MD®: Vibration Sensing Evolved

Presentation: Using AI to Unlock your IoT Infrastructure

Track Chair: Sensor Technologies and Innovations

Track Chair: Al/Machine Learning Strategies for Sensor Data Analysis

Track Chair: Connectivity and IoT Integration

10:00am PDT

Panel Session: The Future of Connected Wearables

Panel Session: Advanced Monitoring & Sensing Technologies

Panel Session: How are the Hardware and Software Architectures Evolving over Time in Autonomous Vehicles?

Expo Floor Open

10:10am PDT

Live Theater Session by Epishine



10:30am PDT	Conference Session: Unlocking the Potential of Digital Twins in the Real-World  Senseable Cities
40-05 DDT	Conference Links in Tallor Wesselds Conserved Conserving Asifficial Labelling on the Olivinal
10:35am PDT	Conference Lightning Talks: Wearable Sensors and Generative Artificial Intelligence for Clinical Decision Making
10:40am PDT	Conference Session: Optical and Imaging Sensors - From Consumer to Industrial
	Conference Lightning Talks: Al in Medicine
10:45am PDT	Conference Session: IoT and Security - What You Need to Know
10:55am PDT	Fireside Chat: The Quantum Sensor Revolution
11:00am PDT	Live Theater Session: The Future of Infrared Point Detectors: Smaller, Scalable, and No Cooling
	Voice Unleashed: Transforming IoT with Autonomous, Battery-Powered Recognition
11:15am PDT	Transition to Converge Main Stage - Expo Floor
11:30am PDT	Keynote: The AI Revolution in Smart Buildings, Vijay Sankaran, VP & Chief Technology Officer, Johnson Controls
11:45am PDT	Partner Keynote Presented by STMicroelectronics: Improving the Lives of People Through Sensors
12:00pm PDT	Industry Hub: Keynote, Tech Talks, and Lunch Roundtables
12:10pm PDT	Live Theater Session by CTS
1:30pm PDT	Keynote: One Chance Per Year: Why AgTech Innovation Matters to Every Person on The Planet
1:35pm PDT	Live Theater Session: Ribbit the Robot, Empowered by TDK
2:00pm PDT	Live Theater Session: Simplified Current-sensing Solutions in More Advanced Systems
	Track Keynote: Connecting Anything, Anywhere
	Panel Session: Innovations in Sensors Design - Navigating Trends & Challenges
	Panel Session: Unveiling the Potential - Real-World Applications of Intelligent Edge Technology
	Track Chair: Edge Computing: From Sensors to Centralized Cloud
	Track Chair: LoRa Connectivity  Track Chair: Sensor Design
2:20pm PDT	Panel Session: Re-Defining LoRa IoT Connectivity in The Evolving IoT Technology Ecosystem
2:40pm PDT	Conference Session: Design Considerations for Building Heterogeneously Integrated Sensor Devices
	Conference Session: Enhancing Data Processing Efficiency at the Edges
3:00pm PDT	Conference Session: The Future of Connectivity is Now - How Open RAN Empowers IoT Deployment and Enablement
	Conference Session: Choosing the Right Position Sensor
	Conference Session: Edge-based Multi-gas Sensors: Anticipated and Unanticipated Advantages over Last-century Sensor Designs
	Startup Review presented by Autotech Council
3:15pm PDT	Conference Session: Wireless Sensor Modeling and Analyzing For 5G/6G Applications
3:20pm PDT	MEMS Industry Commercialization Report Card for 2023



Panel Session: Cloud to Edge Architectures

3:40pm PDT Enabling Healthy Air in Every Home: Next Generation Miniaturized CO2 Gas Sensors

3:45pm PDT How next-generation beacon chips will enable secure identity, location and cloud communication

using Bluetooth Low Energy

4:00pm PDT Best of Sensors Awards Ceremony

4:30pm PDT Expo Floor Reception

## Wednesday, June 26

7:30am PDT Registration Open

8:00am PDT Women in Sensors & Engineering Breakfast Session in Partnership with Women in Electronics - Leveling Up: Leading with Confidence, Strength, and Purpose

9:00am PDT Leaders' Roundtable: The Impact of Al-Enabled Smart Sensor Tech Across Industries

9:40am PDT Finding True North with a MEMS Gyroscope

Panel Session: Energy Harvesting - Powering the Future of Sensor Networks and Controls

Track Chair: Energy-Efficient Sensor Processing

Track Chair: Advancements in MEMS and Nanosensors

9:55am PDT MEMS Commercialization and Market Trends Panel Session

10:00am PDT Expo Floor Open Career Day & Job Fair

10:10am PDT Live Theater Session: Fiber Optic Sensors are enabling mission critical applications in medical, industrial, and aerospace

10:25am PDT Conference Session: Key Considerations in Designing Low-power Sensors for IoT Sustainability to Succeed

Conference Session: MEMS And Sensors Steering the Automotive Industry Transformation

10:30am PDT Live Theater Session: Femto Force, Gripper Finger, and Smart Bracket Sensors will transform automation in harsh environments



10:40am PDT	Conference Session: Solar Energy Harvesting For Maintenance Free Sensor Deployment
11:00am PDT	Keynote: Industrial Generative AI for Sensor Intelligence: Enterprise Use Cases for Real-time Sensor Data on the Edge
11:20am PDT	WISE: Women In Sensors & Engineering Panel - Revolutionizing Women's Health - The Blueprint for FemTech Triumph
1:00pm PDT	Fireside Chat with Scott Bukofsky, CHIPS National Semiconductor Technology Center Program
1:30pm PDT	Conference Session: IEEE Program to Solve Sensors Interoperability and Cybersecurity Issues Will Prepare Industry to Benefit from the Cloud
	Conference Session: Ultra-Low-Power Capacitive Sensors for Human Body Sensor Applications
1:35pm PDT	Live Theater Session: Advancements in MEMS Technology for Enhanced Condition Monitoring and Predictive Maintenance in Smart Factories
1:50pm PDT	Conference Session: Interoperability Testing Methods of Smart Sensors in IoT/IIoT/Smart City Applications
	Presentation: Reducing TTM for Digital Sensors - The Benefits of a Combined Lab & Fab Test System
2:00pm PDT	Live Theater Session: Beyond Reality: How Advanced Simulation is Transforming Sensor Development